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Legacy - December 2015

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UNIVERSITY OF
SOUTH CAROLINA
College of Arts and Sciences

VOL. 19, NO. 2, DECEMBER 2015

Legacy

South Carolina Institute of Archaeology and Anthropology

UofSC Archaeologists Raise Trio of Civil War Cannons

By Peggy Binette @UofSC, 9/29/2015

Columbia, S.C.—A team of underwater archaeologists from the University of South Carolina raised three Civil War cannons—each weighing upwards of 15,000 pounds—from the silty sediment of South Carolina's Great Pee Dee River near Florence, S.C., on Tuesday (Sept. 29). "The recovery of these three cannons—the complete armament of a Confederate gunboat—offers unique insight in the arming and intended role of this warship to contest the Union blockade off the coast of South Carolina and to perhaps engage in high seas raiding against Northern merchant vessels," says James Spirek, an underwater archaeologist with the College of Arts and Sciences' South Carolina Institute for Archaeology and Anthropology (SCIAA).

Archaeologists Pluck 3 Civil War Cannons from River Site

By Susanne M. Schafer—Associated Press—Tuesday, September 29, 2015

COLUMBIA, S.C. (AP)—A team of South Carolina archaeologists plucked three cast iron Civil War cannons from the Pee Dee River on Tuesday and marveled that 150 years in the muck hadn't done major damage to the weapons. "These guns are in remarkable, pristine condition," state archaeologist Jonathan Leader said in a telephone interview after the recovery operation.

SEE Pages 4-9 for the Full Story



The third cannon being lifted from the Great Pee Dee on September 29, 2015. (Photo by Nena Powell Rice)

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Director's Notes

By Steven D. Smith

When the request for articles for this issue went out, Nena received a wealth of material, so much, that we decided to forego my usual opening notes. I warn you, I will seek revenge next issue. I have to include, though, a comment from another satisfied *Legacy* reader. While

at Fort Motte last week, a lady told me that the last issue really should have been called the *Legacy*, because so many photographs included Jim Legg. Well, yes, he does a lot! Enjoy this issue of *Legacy*!

Arkhaïos Cultural Heritage and Archaeology Film Festival

By Dr. Joanna Casey

The Third Annual Arkhaïos Film Festival in Hilton Head, yet again, brought together a collection of excellent and thought provoking films on archaeology from around the world. The Arkhaïos Film Festival was founded by Jean Guilleux, whose long-term love of archaeology has resulted in many decades of volunteer participation in archaeology projects in many countries and engagements with archaeological literature and film. He was astonished to discover that there was really only one venue in North America for seeing documentary films on archaeology, while in his native Europe, there are many. Arkhaïos is his way of rectifying this situation, and this annual, free event provides documentary filmmakers with an enthusiastic audience with a variety of interests and backgrounds. Guilleux's only criterion for the films he and his committee choose from those submitted is "excellence" broadly conceived. Consequently, the slate of films at each festival ranges from big budget, slickly produced extravaganzas to small, low budget films that tell interesting stories about many aspects of archaeology and cultural heritage.

This year Guilleux and his selection committee chose 17 films from the more than 40 that were submitted. Those films went to a second committee of judges who selected the films for the festival's prizes. This year's films were from or about 17 different countries, and six of the 17 selected films were having their American Premiere at Arkhaïos. The festival gives out five major awards: Best Archaeology Film, Best Cultural Heritage Film, best South Carolina Heritage Film, the Arkhaïos Founder Award, and the Grand Prize of the Arkhaïos Film Festival. The audience also votes for its favorite film each day for a total of three awards. There are also Special Mentions, which this year was two awards for Innovative Science

and Archaeological Reconstruction.

The grand prize this year went to *Saving Mes Aynak*, directed by Brent Huffman (USA). The judging panel unanimously selected this film, and it also won the prize for the audience favorite on the day it was shown. It tells the heartbreaking story of the heroic attempts being made by a small group of ill-equipped Afghani archaeologists to save a spectacular site from destruction by a Chinese mining company. Located on the Silk Road, Mes Aynak dates back 5,000 years, but its most visible and stunning aspect is an early Buddhist temple complex. Lead archaeologist, Qadir Temori, negotiates a treacherous labyrinth of avaricious corporations, corrupt government officials, Taliban terrorists, and well-meaning but oblivious and utterly ineffectual international archaeologists, to try to either save the site from destruction, or responsibly salvage as much of it as possible. Beyond its story, wonderful cinematography and charming characters, the film is an excellent indictment of global capitalism and its effects on cultural preservation and the lives of people in local communities. All university libraries should own a copy of this film.



Jean Guilleux, at the opening of Arkhaïos.
(Photo by Mary Lou Brewton)

Square Holes: Digging the Kolb Site by William Judge (USA) received three awards, including Best Archaeology Film. The film is about an archaeology project that has taken place for two weeks each March for the past 17 years on a large, multicomponent site in South Carolina. While the original objectives of the project were fairly modest, the site, and in fact the project itself, turned out to be far more complex and interesting than could possibly have been imagined. The film captures the hard work of undertaking a scientific archaeology project and also the fun and camaraderie that make archaeological fieldwork so addictive that it has inspired many of Kolb's participants, all volunteers, to return every year. Importantly, the film shows how public outreach can enrich archaeological research. *Square Holes* also won the Founder Award, which acknowledges films that best capture the involvement of volunteers and a commitment to public outreach, and the audience favorite film for the day it was shown.

The award for the Best Cultural Heritage Film went to *Kingdom of Salt: 7000 years of Hallstatt* by Domingo Rodes (Spain), which chronicles the long history of human exploitation of salt deposits in the Austrian Alps. The film included lovely cinematography of this UNESCO World Heritage Site.

The festival devotes time each day to screening films about local heritage and culture. The award for Best South Carolina Heritage film went to *Down on Bull Street* by Lynn Cornfoot (USA). Although the film focused on the Bull Street Asylum in Columbia, SC, it is actually a history of the treatment of mental illness in America, and as such appeals to a much broader audience.

Two films were given special mentions. *X-Ray Time Machine* by Martin Freeth (UK) won the prize for Best Innovative Representation of Scientific Archaeology. It is a story of how a small private company developed a high powered laser to produce 3-D X-rays of the enigmatic Antikythera mechanism, a two thousand year old bronze analogue computer that can be used to predict celestial events. The Antikythera mechanism was found on a Greek shipwreck in 1901, but analysis has been hampered by its state of corrosion and fragility. The high resolution CT scans that the engineers were able to produce, took archaeologists inside the mechanism, revealing layers of gears and inscriptions. The mere existence of the Antikythera mechanism is enough to warrant a whole series of films, as are the high res scans and their implications, but the filmmaker took a different tack, foregrounding the process of developing and deploying the X ray machine. It is testament to Freeth's skill that he could make the enthusiasm

of a group of middle aged engineers even more interesting than an artifact that is truly one of the wonders of the ancient world, and make the question of whether their company had bankrupted itself in the process even more compelling than the insights gained via the X-ray machine.

A second special mention for the Best Archaeological Reconstruction went to *Monique Peytral, Painting Lascaux, Painting Life* by Constance Ryder (USA/France) about the charismatic artist who spent 11 years painting the replica of Lascaux Cave.

The audience's favorite film on Day 2 went to *On the Trail of the Fur Country* by Kevin and Chris Nikkel (Canada), which retraced the journey of a 1919 Hudson's Bay Company expedition to film the fur trade in northern Canada. The filmmakers showed clips of the original expedition to their descendent communities often eliciting emotional responses from audience members who recognized their ancestors from family photos or by their names. The film provides an excellent document of exploration and lifeway in northern Canada 100 years ago, but more importantly, it documents how native communities have risen to meet the opportunities and challenges of their modernizing communities. The film neither vilifies nor romanticizes either past or present, and modern Inuit and First Nations people living even in remote communities emerge as educated, articulate and completely in control of lives that may or may not include traditional elements embedded in modern ideologies and practices.

An honorable mention went to *Lightning Strikes Twice: The Real Life Sequel to Moby Dick* by Stephani Gordon (USA). This film focuses on the recovery of the 18th Century whaler, *Two Brothers*, which was wrecked on a reef in the Northwestern Hawaiian Islands. The wreck ended the short whaling career of hapless Captain George Pollard, whose previous ship, the *Essex*, was wrecked by a whale and provided the inspiration for *Moby Dick*. This was a very entertaining film filled with cheerful, sun bronzed archaeologists, gorgeous footage of Nantucket and Papahānaumokuākea Marine National Monument, and enough ghoulish archival material on whaling and shipwrecks to have me downloading the novel, *In the Heart of the Sea*, about the wreck of the *Essex*, as soon as humanly possible. That book is soon to be released as a motion

picture directed by Ron Howard and *Lightning Strikes Twice* will be included as a special feature on its DVD.

Other notable films include *Roman Engineering: Aqueducts* by Jose Antonio Muniz (Spain/France). Much of this was shot in a studio using CGI but it was nevertheless an amazing lesson in how the Romans built the aqueducts with extreme precision over vast distances. *Amerindian Fingerprint* by Pierre-Nicholas Durand (France / Antilles) explores the original colonization of the Lesser Antilles Islands from Trinidad to Guadeloupe by South Americans some 7000 years ago. The film follows Anthropologist, Vanessa Demirciyan who speaks with researchers and descendants to understand indigenous identity in these islands that have been heavily impacted by later colonizers.

Perhaps the least convincing film shown at the festival was *Chavin de Huantar* by José Manuel Novoa. Novoa's *Lady of Cao* won the grand prize the previous year at Arkhaio, so expectations were high for this American Premiere event. The extravagant, high budget film played fast and loose with the data from this early Peruvian culture, filling the underground chambers at the site with actors portraying drugged and hallucinating acolytes enduring barbaric initiation ceremonies while a gullible public quaked with fear and awe in the plaza above. Although, we do not know precisely what happened at Chavin de Huantar, and this is one possible scenario, the film perpetuates the idea that early-stratified societies consisted of an all powerful, despotic elite and a helpless and ignorant peasantry. Contemporary archaeology and anthropology is interested in understanding power relationships in complex ways and particularly the ways in which those with little power negotiate and subvert those relationships. This film, however, plays into stereotypes rather than interrogating the evidence. Novoa's films are widely played on educational television channels around the world, perpetuating and disseminating this superficial and outmoded view of the peoples of the past and what the archaeological record can actually tell us.

The lively audience at the festival provided a lot of opportunity to discuss the films and much of this review has been informed by these interactions. I would especially like to thank Karl Heider, Kimberly Cavanagh and Nena Powell Rice for sharing their insights with me.



Maritime Research Division

Recovery of the CSS *Pee Dee* Armament from the Great Pee Dee River

By James Spirek and Jonathan Leader

On September 29, 2015, following 150 years of lying peacefully on the bottom of the Great Pee Dee River, three cannons jettisoned by the CSS *Pee Dee* during the waning days of the Civil War, were lifted onto the bank of the river to the delight and appreciation of numerous invited guests and colleagues (Figure 1). Under the general supervision of South Carolina Institute of Archaeology and Anthropology (SCIAA) archaeologists, James Spirek, State Underwater Archaeologist, and Dr. Jonathan Leader, State Archaeologist, the SCIAA team was complemented by a number of individuals and organizations to undertake the successful raising of these cannons. Finally resting on the riverbank, the cannons represented the culmination of years of searching and planning for the recovery of this unique trio of guns—the complete armament of a Confederate gunboat.

The search and recovery of the three cannons had been the focus of numerous individuals, organizations, and SCIAA for a number of years. The search area for the cannons initially centered at the shipwreck location a mile or so downriver, and when they were not found there, attention



Figure 2: Glenn Dutton teaching Nate Fulmer and rest of crew the Cross-Your-Heart strapping method to recover cannons. The practice cannon is an IX-inch Dahlgren recovered from the SS *Philadelphia*, a schooner carrying a load of scrap armament from Charleston in the late 1860's that wrecked in federal waters off South Carolina. (SCIAA photo)

turned to the waterfront of the shipyard. In 1995, the CSS *Pee Dee* Research and Recovery Team, a private avocational archaeology group, under the direction of Ted Gragg and Bob Butler, found the

first of the three CSS *Pee Dee* cannons—the IX-inch Dahlgren smoothbore—when systematically exploring the waterfront of the navy yard. Eleven years elapsed before the team found the supposed VI.4-inch Brooke rifle just a bit upriver from the Dahlgren in 2006. The team operated in the river at the waterfront of the Mars Bluff Navy Yard under the auspices of an Intensive Survey and Data Recovery License issued by SCIAA. The licenses ensured that SCIAA monitored and supported the team's efforts to document the site with as much archaeological detail as possible. The group did an excellent job expending painstaking efforts recording the archaeological features and artifacts of the site—both on land and an underwater. The group also conducted exhaustive historical research to detail the rise and demise of the shipyard and gunboat.



Figure 1: Recovery of double-banded VI.4-inch Brooke rifle. (Photo courtesy of Dr. Lawrence Babits)



Figure 3: Markings on left trunnion of "VI 4 IN" with weight "10620" and serial number "S 53." (SCIAA photo)

Tangible results of the team's efforts are on display at the South Carolina Civil War Museum in Myrtle Beach and in a book entitled, *Guns of the Pee Dee, The Search for the Warship CSS Pee Dee's Cannons*.

In 2009, the Drs. Bruce & Lee Foundation, a charitable organization based in Florence, awarded SCIAA a grant of \$200,000 to continue the archaeological investigations at the site and to recover the armament of the gunboat for public display. With two of the three cannons located, SCIAA, in cooperation with the CSS *Pee Dee* Research and Recovery Team and the new property owners, Glenn Dutton and Rufus Perdue, launched efforts to search for the third cannon and to continue documenting the shipyard, both underwater and on land. Believing the project offered a great educational opportunity, SCIAA contracted with the Program in Maritime History at East Carolina University, Greenville, North Carolina to conduct a field school to

increase the work force and to gather as much information as possible at the site. The ECU-SCIAA field school, augmented

by a geophysical survey by USC students under the supervision of Dr. Leader, provided a great amount of information about land and underwater features at the shipyard that included recovering Brooke shells, friction primers, and other gunboat and shipyard-related artifacts, but no VII-inch Brooke rifle. ECU prepared a report entitled, *Prehistoric Pottery, Munitions and Caulking Tools: Archaeological and Historical Investigations at Mars Bluff Confederate Shipyard (38MA22/91) on the Great Pee Dee River*, that detailed the terrestrial and underwater work and findings that resulted from the field school.

SCIAA and our partners then spent the next several years looking for the VII-inch Brooke rifle, primarily focused on following the line of the other two jettisoned cannons by systematically detecting magnetic anomalies using a cesium magnetometer, metal detector, hand-held proton magnetometer and then excavating to determine the sources of the targets. By weeding through these targets, we found a number of objects—kitchen stove fragments, logging debris—many log dogs, a few other shells, but once again no missing Brooke rifle. In the summer of 2012, Dutton and Perdue, the property owners, took advantage of extremely low-water levels by deploying a metal



Figure 4: Corroded muzzle of VII-inch Brooke rifle. (SCIAA photo)



Figure 5: Detail of "FP No 513" on breech of IX-Dahlgren. (SCIAA photo)

detector in the river. Walking around the shallows, they methodically searched the riverbed for the elusive cannon. Moving out from the bank towards the channel and into an area of the river that currents had previously prevented our diving operations, the men found a large magnetic anomaly near a few exposed wooden pilings, believed to once form part of the gunboat's mooring area. Later in the fall of that year, SCIAA returned to the site to continue our investigations, as well as to begin planning to recover the two cannons. Preparing to launch our pontoon boat for the first day's work, Dutton informed Spirek of the possible discovery of the missing cannon. Our planned operations switched gears to confirm the discovery of the supposed VII-inch Brooke rifle. After metal detecting to define the target, dredging operations to clear the magnetic anomaly quickly confirmed that Dutton and Perdue had indeed found the lost cannon.

With all three cannons accounted for, we began in earnest to plan for their recovery. Following the Civil War, title to all Confederate States property reverted to the United States. Prior to any efforts to recover the jettisoned armament, a loan agreement between the custodians of the three cannons, the Administrator of General Services (GSA), was forged between the federal agency and the Florence County Museum, Florence County, and SCIAA. All parties signed the loan agreement in early 2015, which gave

the greenlight to proceed with recovering the cannons. In the meantime, we worked to secure the services of contractors to recover, transport, and conserve the cannons. We contracted with Long Bay Salvage Company (LBS), owned by Dutton and Perdue, to recover the cannons and to transport the guns to and from North Charleston. To conserve the cannons for outdoor display, we contracted with the Warren Lasch Conservation Center (WLCC), the same facility treating the Confederate submarine *H. L. Hunley*. A major concern also centered on locating the proper venue to display the cannons when they returned to Florence. Fortunately, Florence County, in conjunction with the Florence County Museum, offered to

display the trio at a new U.S. Department of Veterans Affairs Administration building, currently under construction. The facility will also house space for the Florence County Museum to display artifacts and interpretive materials related to the three cannons and other aspects of the Civil War in the Pee Dee region.

With the extraction, conservation, and exhibition plan squared away, we launched a two-stage approach over two weeks to recover the guns with the first phase consisting of preparing the guns for recovery and then the second step: Lift-Day! The preparations for recovery occurred during the week of September 21, that included dredging operations to clear the cannons of overburden, strapping the cannons, and re-positioning the supposed VII-inch cannon closer to shore. This was undertaken as a precaution, because this tube lay further out in the stream, and if the river level rose, it would potentially preclude diving operations on Lift-Day. This would ensure smooth operations on the arranged date with spectators and media present expecting three cannons to rise out of the water—not two. Happily the equipment, river, and weather cooperated and with a bit of hard work and some luck, the three cannons were strapped and readied for Lift-Day scheduled for September 29 (Figure 2).

Perhaps the readers of the article may



Figure 6: VII-inch Brooke rifle breaking the surface with MRD pontoon in background. (SCIAA photo)



Figure 7: Jonathan Leader and Tanner Dutton position VII-inch into position with other guns—VI.4-inch in foreground and IX-Dahlgren in the middle. Virginie Ternisien, Warren Lasch Conservation Center conservator, left in foreground. (Photo courtesy of Luke Spirek)

have noticed and wondered why the authors wrote, “supposed VI.4-inch” or “supposed VII-inch” when mentioning the discovery of these two cannons? When we re-positioned the “supposed VII-inch” closer to the river bank, we were dealt a surprise regarding the true identity of this particular gun. But first we must address the identity of the “supposed VI.4-inch.” Over the years, all the groups involved in the project measured the bore at the muzzle of this particular cannon between 6.4 or 6.5 inches. When the “supposed VII-inch” cannon was found, the muzzle bore was never measured, an oversight in hindsight, because this was the VII-inch. When we repositioned the “supposed VII-inch” and saw the cannon fully exposed, the size of the cannon struck some as small, and then we found engraved “VI⁴ⁱⁿ” on the left trunnion (Figure 3). All those years spent in search for the VII-inch was in fact a search for the VI.4-inch, which obviously meant all those years we had already found the VII-inch. This also meant re-thinking the position of the gunboat at its mooring when the crew jettisoned the cannons overboard. Rather

than pointed downstream, the bow of the gunboat was actually positioned upstream, the location of the forward VII-inch gun, perhaps intending to steam once more in support of the Confederate retreat over the river or was simply the preferred mooring orientation at the navy yard. The reason for the errant measurement was due to the muzzle of the VII-inch suffering more corrosion than the other two tubes from periodic intervals of exposure to the air during low river levels. The cannon when jettisoned landed on its breech end in the mud near the riverbank with the muzzle pointed upwards into the water column—unlike the other two that landed and fell lengthwise on the river floor. Whereas the muzzles of the two other guns were nearly newly casted sharp, the muzzle of the VII-inch had corroded to a smaller diameter that caused the mis-measurement of the bore (Figure 4). Regardless of which was which, all three cannons are now firmly identified. But that left one more identity to settle—where did the gunboat’s IX-inch Dahlgren come from?

The pedigrees of the two Brooke rifles are fairly complete even down to the

amount of iron used in pouring the mold and their shipment from Selma, Alabama to the Mars Bluff Navy Yard. The identity of the Dahlgren, however, remained problematic to a degree. Based on the markings engraved on the cannon, we had determined the weapon was Union-made and cast at the Fort Pitt Foundry outside Pittsburg, PA in 1862 and inspected by the assistant ordnance inspector, Captain John M. Berrien. Engraved at the top of the breech was the IX-inch’s serial number recorded as “FP 573.” Dr. Lawrence Babits, now-retired director of the Program in Maritime Studies at ECU, had posited three Union shipwreck candidates from which the gun came from—two from out West and the USS *Southfield*, sunk in the Roanoke River near Plymouth, N.C. in the spring of 1864. *Southfield* seemed the most viable source due to railroad logistics at this juncture in the war. Last year, when conducting research at the National Archives in Washington, D.C., we decided to confirm the identity of the vessel that the Dahlgren came from using the recorded serial number. When we reviewed the IX-inch Dahlgren smoothbore registry for “FP 573,” we learned that that gun was aboard the USS *Cincinnati*, operating in the Western theater and had been last fired in April 1865—clearly not our gun. We then looked for *Southfield* guns in the registry and also found another document that listed the specific ordnance aboard the gunboat. The armament of the gunboat at the time of its sinking consisted of a 100-pdr Parrott rifle and five IX-inch Dahlgren’s. The document listed the serial numbers and other markings on each gun. One of the IX-inches was “FP 513.” Information derived from the registry noted that “FP 513” had the same markings that we had seen on the Dahlgren in the river. The registry reported that the gun was sunk aboard the *Southfield* and never recovered by the Union navy. The Confederate navy, however, had recovered this gun like the rest of *Southfield*’s armament. This, therefore seemed likely our gun, but we had yet to confirm the “7” originally recorded during the field school was



Figure 8: Cannons wrapped and strapped on the trailer for delivery to Warren Lasch Conservation Center in North Charleston. (SCIAA photo)

actually a “1.” The week prior to recovery, we finally determined that the Dahlgren was indeed “FP 513” and was the missing *Southfield* gun recovered by the Confederates and used to arm the CSS *Pee Dee* (Figure 5). Corrosion had once again masked the identity of another one of the cannons.

Besides recovering the complete armament of a Confederate gunboat, what makes this a unique collection of cannons is having the individual histories of each of these tubes interweaved with the archaeological record. So it is hoped that visitors instead of simply gazing at these cannons in front of the VA building will nod knowledgeably about the journeys of each of these guns used to arm a gunboat intent on contesting Union supremacy on the rivers and seas during the Civil War. As an aside, the newsletter editor has asked Spirek to pen a brief narrative in the next issue of *Legacy*, detailing his previous work on the USS *Southfield* as a graduate student and the serendipitous nature of working to recover one of its guns from the Great Pee Dee River.

On Lift-Day, September 29, we recovered the three cannons working from the aft gun to forward gun or from downriver to upriver. The double-banded

VI.4-inch Brooke rifle, weighing in at 10,620 lbs. and the gunboat’s aft gun, breached the surface shortly after 10:00 AM and was brought to the riverbank by a large excavator. The assembled crowd broke into applause and whistles, as the cannon swung up from the river and then settled onto bedding blocks. The IX-inch Dahlgren smoothbore, weighing in at 9,193

lbs. and the amidships gun, was next, followed by the finale—the double-banded VII-inch Brooke rifle, weighing in at 15,000 lbs. (Figure 6). Once the cannons were positioned on the bedding blocks, the tape marking the safety zone was taken down for the spectators to get close-up views of the tubes (Figure 7). Two conservators from the WLCC worked on keeping the cannons wet, along with some assistance from invited guests. In the meantime, Spirek, Leader and other principals conducted media interviews discussing project particulars, historical significance, and near and long-term plans for the armament. As the crowd dwindled away, we began to prepare the guns for transport to the WLCC the next day by wrapping them in wetted blankets and plastic wrap. The following day the 18-wheeler arrived and we situated the three guns on the trailer for the three-hour trip to North Charleston (Figure 8). We arrived in good time at the WLCC and backed the trailer into the laboratory and then deposited the three large cannons into their conservation tanks (Figure 9).

The conservation plan for the cannons relies on electrolysis that will safely remove the encrustations, stabilize and neutralize the corrosion, and then finish



Figure 9: Glenn Dutton assists in positioning IX-inch into conservation tank at Warren Lasch Conservation Center. (SCIAA photo)



Figure 10: XI-inch Dahlgren in the conservation tank. (SCIAA photo)

with a coating of a special solution for outdoor display. This process should last approximately two years. As the cannons near completion, we will record the dimensions, markings, and other details of the exhibition-ready tubes. The concluding phase of the project will occur when the three cannons are transported and mounted on their pedestals in 2017, at the new U.S. Department of Veterans Affairs facility in Florence.

For those readers desirous of more background information about the history of the CSS *Pee Dee*, Mars Bluff Navy Yard, the three cannons, previous research efforts, and SCIAA's involvement in the archaeological investigations at Mars Bluff and the gunboat, please refer to the following articles in SCIAA newsletters *Quarterly Reporter* and *Legacy*, (*Quarterly Reporter*, Volume 1, Issue 4, 2011, pages 4-5; *Legacy*, Volume 13, Number 2, 2009, pages 1 & 4-8; Volume 17, Number 1, 2013, pages 16-17). All of these articles are available online at USC's *Scholar Commons* website.

Acknowledgements:

As with any large-scale undertaking to recover archaeological artifacts, especially large ones weighing between 9,000 to 15,000 lbs., requires a great amount of logistical support from paperwork to fieldwork that required the time, treasure,

and talent, and not to mention tenacity of numerous individuals and organizations to accomplish. The following list reflects the many personal and institutional commitments that brought this phase of the project—from riverbed to conservation center—to a close: Drs. Bruce and Lee Foundation, L. Bradley Callicott, Executive Director, and board members; Florence County Museum, Andrew R. Stout, Director, Steven Motte, and staff; Florence County, K.G. Rusty Smith, Jr., Administrator; Florence County Council, James T. Schofield, Chairman; Florence County Sheriff's Office, Major Michael Nunn and deputies; South Carolina Senate and House Delegation, Sen. Hugh Leatherman, Sen. Glenn McConnell, Rep. Kristopher Crawford, and Rep. Philip Howe; Administrator of General Services, Beth Savage, Federal Preservation Officer, and Claire Hoskers and Caroline Alderson; Ben Zeigler, Long Bay Salvage Company, LLC, Glenn Dutton, Rufus Perdue, Tanner Dutton, and Lisa Dutton Little; Warren Lasch Conservation Center, Clemson University, Dr. Stéphanie A. Cretté, Director, and Virginie Ternisien, Christopher McKenzie, and Johanna Rivera; CSS *Pee Dee* Research and Recovery Team, Ted Gragg, Bob Butler, Chad Butler, and team members; Palmetto Scuba, David Freeman and Cody Freeman; East Carolina University, Program in Maritime Studies, Dr. Lawrence Babits, retired and

Former Director, Dr. Lynn Harris, and field school students; Francis Marion University, Dr. Travis Knowles; University of South Carolina, Mechanical Prototype Facility, Allen Frye; University of South Carolina Public Relations, Margaret Binette and John Brunelli; University of South Carolina Purchasing and Control Supply Office, Venis Manigo and Kevin Shepherd; University of South Carolina, College of Arts and Sciences, SCIAA, Dr. Steven Smith, Director, Susan Lowe, Susan Davis, Nena Powell Rice, and James Legg; and the Maritime Research Division staff, Jessica Irwin, Nathan Fulmer, Joseph Beatty, and Daniel Brown, who deserve a great share of the credit in the preparations that resulted in the smooth and professional manner in which the cannons were recovered on Lift-Day. Christopher F. Amer, retired State Underwater Archaeologist, also deserves recognition for laying the project foundation that resulted in plucking the guns from the river. Another group deserving recognition is the family members and friends that supported these efforts, along with professional colleagues, that shared in the fruits of our labor. Any omission from this impressive list of people and organizations is the authors' sole fault, and please accept their apologies.



Figure 11: SCIAA team poses in front of VII-inch, (Left to Right): Dan Brown, Joe Beatty, Jim Spirek, Jonathan Leader, Nate Fulmer, and Jessica Irwin. Ted Gragg at far left with Glenn Dutton and Bob Butler. (SCIAA photo)

Parris Island Canoe and Exhibit Reconstruction

By Alyssa Reisner

Editor's note: This article originally appeared in the January 2015 edition of the "Stem to Stern," the newsletter of the Program in Maritime Studies at East Carolina University, Greenville, North Carolina. SCIAA has been, to some degree, involved with the canoe since its discovery in 1988 by James Cooler. Deemed federal property, the canoe's recovery from the Parris Island shoreline to a Parris Island Museum exhibit has been under the auspices of the U.S. Marine Corps. In 2012, the canoe returned in conserved fragments to the Parris Island Museum where Jim Spirek, State Underwater Archaeologist, suggested to Dr. Stephen Wise, Museum Director, to offer the process of reconstructing the canoe to a graduate student. Fortunately, former SCIAA underwater archaeologist, Dr. Lynn Harris, a professor at East Carolina University, found an interested student to take on this task. The following article recounts the final stages of reconstructing the fragmented canoe into an interpreted museum exhibit.

In June 2014, Dr. Lynn Harris and graduate students Sonia Valencia and myself were involved in ending the long conservation and preservation journey of a canoe to be exhibited in South Carolina at the Parris Island Museum.

In 1988, Mr. James Cooler, a Beaufort, SC resident, first discovered the wooden canoe in the marsh along the shoreline of Parris Island, SC (Figure 1). Since 1915, the island has served as the site of a United States Marine Corps Recruit Depot (MCRD). The vessel was claimed as federal property, and Marines from the depot recovered it. The canoe broke during recovery and continued to fragment while in storage. Beta Analytic identified the wood as eastern white pine and dated it to approximately 590 years old (AD 1300-1420). According to some archaeological sources, Native Americans may have produced the canoe during the Late Woodland period.



Figure 2: ECU student and USMC recruit work to piece canoe puzzle together (Photo courtesy of the Program in Maritime Studies, East Carolina University)

The canoe fragments were stored in various South Carolina repositories before being sent to Tidewater Atlantic Research in North Carolina, where they were

conserved using polyethylene glycol. In 2011, the fragments were shipped to the Maryland Archaeological Conservation Laboratory for treatment in a freeze dryer and were then returned to South Carolina for eventual display in the Parris Island Museum. The museum house exhibits that focus on maritime history and the history of the island from the Paleo-Indian period to the present. Recognizing the educational potential of this prospective exhibit, Dr. Stephen Wise (Parris Island Museum Director and Cultural Resource Manager) offered the opportunity to gain valuable museum work experience to the two Maritime Studies graduate students under the guidance of Dr. Harris. The Parris Island Historical and Museum Society funded the restoration and exhibition of this canoe.

Dr. Harris, Valencia, and myself first visited Parris Island in May 2013 to measure, photograph, document, draw,



Figure 1: Original situation of canoe embedded in intertidal zone at Parris Island with James Cooler, finder of the prehistoric watercraft (SCIAA photo)



Figure 3: Working to position and support reconstructed canoe (Photo courtesy of the Program in Maritime Studies, East Carolina University)

and digitize the canoe fragments. They noted possible tool and burn marks and recorded potential footprints on certain areas of the wood. Though many pieces were missing, the team documented 18 canoe fragments and matched them based on shape, color, thickness, and wood grain pattern in order to recreate a best-fit structure of the original canoe (Figure 2). The three visited again for a week in December 2013, joined by volunteer Andy Holloway. They documented the canoe fragments in greater detail before stitching them together with plastic cable ties (Figure 3).

A third and final visit was made to Parris Island in June 2014 by Dr. Harris, her daughter Leigh Harris, Holloway, Valencia, and myself. After further documentation of the canoe, the students and volunteers assembled the canoe's display case in the Parris Island Museum (Figure 4). Once assembled, the vessel measured roughly six meters in length and 80 centimeters in beam at the preserved extremity. Using plastic netting and PVC pipes as a platform, the group carefully

transported the assembled canoe to the museum. They used oyster shells, marsh grass, and sand in the display in order to cover the ties and give the exhibit a more natural look. Before the final unveiling of the exhibit, Dr. Harris, Valencia, and myself presented at the MCRD to discuss the Program in Maritime Studies,

cultural resource management aspects of preserving prehistoric and historic canoes, and the process of preserving the Parris Island canoe. Further information regarding the Parris Island canoe is being documented as a case study in my M.A. thesis. The canoe is now officially on display in the Parris Island Museum, where it will convey a greater understanding and appreciation of the culture from which it originated.



ECU student taking measurements and recording the canoe. (Photo courtesy of the Program in Maritime Studies, East Carolina University)



Figure 4: The restored Parris Island Canoe at the Parris Island Museum (Photo courtesy of the Parris Island Museum)

In Search of Yamasee Indian Villages in Upper Port Royal Waters

By James Spirek and Chester DePratter

In 1683, a new group of immigrant Indians began arriving on the islands surrounding Port Royal Sound on the lower South Carolina coast. These new arrivals were reported to be Yamasee, who were relocating to the north as the coastal Georgia Spanish missions were being abandoned.



Figure 1: Yamasee pottery exposed on Combahee River floor. (SCIAA photo)

By the end of 1684, there were said to be about 1,500 Yamasee in ten or more villages around Port Royal Sound. A group of Scotch settlers in their new settlement of Stuart's Town near present-day Beaufort instigated Yamasee attacks against the Spanish missions in northeast and north

central Florida. Loot taken in these attacks included church furnishings and captives who were enslaved and sold to the English in Charles Town and to the Scots.

By 1686, the Spanish governor at St. Augustine had grown tired of these incursions, so he sent a fleet of ships to Port Royal to attack Stuart's Town and the Yamasee towns. The Spaniards destroyed the settlements of both the Scots and the Yamasee. The surviving Scots relocated back to Charles Town, and the Yamasee moved north to the banks of the Ashepoo and Combahee Rivers where they settled in several towns. The Yamasee remained in the Ashepoo and Combahee region until the mid-1690s when they moved back to Port Royal Sound. In 1707, the Carolina government passed an act prohibiting occupation of islands by the Yamasee, so they all were forced to relocate to the mainland areas surrounding Port Royal. One of the towns involved in this relocation was Pocosabo. Pocosabo was one of the Upper Yamasee towns composed of coastal Georgia Guala who had joined the Yamasee in



Figure 3: Dredging operations in Combahee River. (SCIAA photo)

the 1683 relocation to Port Royal. DePratter located this town on the mainland inland from Whale Branch near Beaufort in 1989 and conducted limited testing there the following year.

The Yamasee only remained in South Carolina for a little over 30 years. During their stay in Carolina, the Yamasee were seriously abused by traders and eventually were heavily indebted to them. In 1715, they allied themselves with the Creeks, Apalachee, Yuchi, Apalachicola, and others and killed Thomas Nairne, Indian Agent, and traders at the Yamasee town of Pocotaligo on April 14 of that year. A large force of Indians marched toward Charles Town, but they were repulsed and forced to retreat to the south. After this war, most of the Yamasee resided in Florida near St. Augustine.

For the past two years, the Maritime Research Division (MRD) and Dr. Chester DePratter, of the Research Division, have investigated the remains of a Yamasee Indian occupation site dating to the late 1680s and mid-1690s on the banks of the Combahee River. Operations at the site in 2013, included sonar and diving operations to discover the loci of Yamasee Indian pottery sherds eroding into the river. Surface collecting from the river floor by MRD underwater archaeologists and volunteers succeeded in identifying a concentration of culturally related pottery adjacent to the suspected occupation site (Figures 1 and 2). DePratter had hoped to conduct shovel tests to identify the site on land, but the landowner never granted permission to



Figure 2: Chester DePratter inspecting collection of pottery and other artifacts recovered by former MRD underwater archaeologist Ashley Deming. (SCIAA photo)



Figure 4: Nate Fulmer and Jim Spirek, along with volunteer Ted Churchill, sorting through dredge spoil for pottery sherds and other artifacts. (SCIAA photo)

excavate. Refer to a previous *Legacy* article by DePratter that recounts the methods and findings from this phase of the project (Vol. 17, No. 2, November 2013, pp. 10-11). In 2014, the MRD and DePratter returned to the river to conduct underwater excavations in an attempt to discover ceramics and other related artifacts, especially beads, buried near the bank. Underwater excavations recovered some pottery sherds, but no beads or other associated artifacts, and determined that by far the most prolific means of recovering artifacts remained in surface collecting ceramics exposed on the river floor (Figures 3 and 4).

Due to the success of finding artifacts associated with the Yamasee occupation on the Combahee River, the principal investigators looked to expand their research by investigating related habitation sites on the rivers in the upper Port Royal Sound region. As mentioned above, DePratter had located evidence of Pocosabo on a creek off Whale Branch River. The site of Pocosabo sits atop a bluff adjacent to a small tidal creek that has gradually eroded back into the village terrestrial deposits. DePratter had also speculated on the location of other suspected Yamasee habitation sites based on historic maps, place names, and

locations of high lands adjacent to other waterways in this area. To undertake this new direction and expansion in their research, the principal investigators secured funding from an Archaeological Research Trust grant.

We spent a week, June 8-12, 2015, searching for high ground and other likely habitation sites at several creeks and rivers in Beaufort County looking for evidence of Yamasee Indian villages dating to the early 1700s. The first two days were spent conducting remote-sensing operations in the adjacent waterway next to the land features. The primary tool for this phase

was the side-scan sonar used to depict the creek bottoms, primarily looking to determine sediment compositions, typically mud, sand, or marl, to distinguish geomorphological features, such as sandbars or gravel beds, and to identify potential diving hazards, including submerged trees (Figure 5). A high and actively eroding bluff characterized the waterfront at Pocosabo with many fallen trees littering the intertidal zone (Figure 6). Initial interpretation of the sonograms of the creek floor suggested a series of sand or mud ridges perpendicular to the channel (Figure 7). Instead, divers unexpectedly encountered a strata of exposed sedimentary rock that hindered searching for artifacts that was compounded by extremely poor visibility. We checked in the hollows and along the ridges but did not find any pottery or any other artifacts, except one green push-up bottle dating to the 1730s—outside our targeted time period (Figure 8). Unfortunately and despite our best efforts, we came up empty for any type of pottery, other diagnostic artifacts, or evidence of Yamasee settlements along the waterways. The most interesting aspect we encountered was the rock lens at two underwater locations, as well as a surface outcrop at a small hammock along one of the creeks (Figure 9). A poor quality chert was also present and according to Dr. Al Goodyear, may have served in a pinch for making lithic tools by local inhabitants. Despite the negative underwater results,



Figure 5: Survey crew composed of Joe Beatty, Jim Spirek, and Chester DePratter. (SCIAA photo)

archaeological testing of the adjacent investigated high-grounds may reveal Yamasee-related artifacts much like at Pocosabo. Nonetheless, the week was well spent with new MRD staff member, Jessica Irwin, our volunteers, Cat Sawyer and Jimmy Armstrong, and of course any opportunity working with our colleagues to bridge the land and water divide in search of South Carolina's archaeological legacy is well worth the effort. The principal investigators appreciated the support from the Archaeological Research Trust board members to undertake this project.



Figure 6: Eroding bluff at Pocosabo. (SCIAA photo)

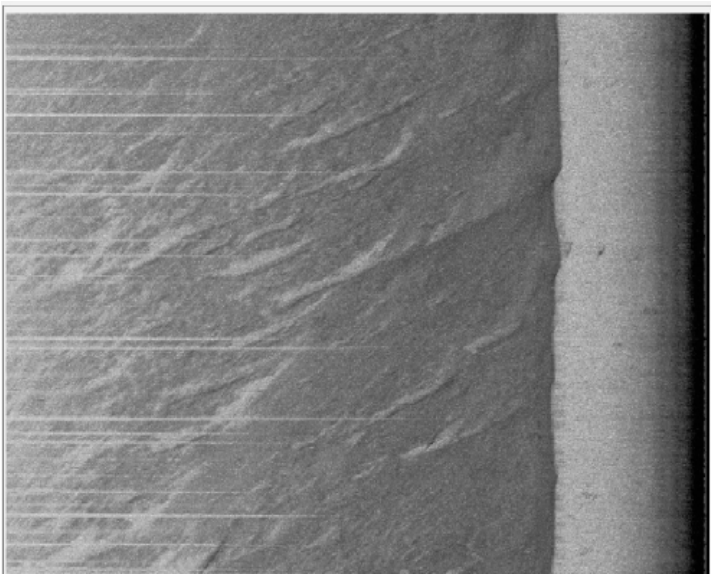


Figure 7: Rock ridges on the floor of creek adjacent to Pocosabo. (SCIAA photo)



Figure 8: Volunteers Catherine Sawyer and Jimmy Armstrong prepare to search for artifacts on creek floor. (SCIAA photo)



Figure 9: Nate Fulmer, with Joe Beatty and Jessica Irwin in johnboat, inspecting the shore of a small island composed of sedimentary rocks, interspersed with pieces of poor quality chert. (SCIAA photo)

Research Division

Chicasa: Searching for de Soto in Mississippi, June 2015

By James B. Legg



El Adelantado Hernando de Soto,
Figure 1: Hernando de Soto, pictured in the early 17th century. (Antonio de Herrera y Tordesillas)

In December 1540, the Spanish expeditionary force of Hernando de Soto (Figure 1) crossed into what is now eastern Mississippi, in the vicinity of present Lowndes County. De Soto's small army was in a desperate state after the epic battle and massacre at Mabila, somewhere in south-central Alabama,

which resulted in heavy casualties and the loss of most of the expedition's supplies. The Spanish would not fare any better in the territory of the Chicasa, later the Chickasaw. Somewhere in the vicinity of Starkville, in present Oktibbeha County, Mississippi, the Spanish appropriated the principal Chicasa town of Chicasa and went into winter camp. Through the winter, there was a pretense of cordial relations while the Chicasa plotted to destroy their arrogant and abusive guests when the time was right. In late February, de Soto made preparations to break camp and renew the march, and he demanded a large number of porters (effectively slaves) from the Chicasa. The infuriated natives struck de Soto's camp at night, and burned the Spanish out before withdrawing. De Soto moved his impoverished command to another town nearby, where they soon fought another, more successful battle with the Chicasa. At the second town, the Spanish spent several weeks recuperating and refurbishing what little they still had in the way of material goods, and then marched away to the northwest. The



Figure 2: The metal detecting survey area at 22OK778. In the distance, a 1 X 1-meter test unit excavation is underway. (Photo by Steven D. Smith)



Figure 3: A small, flat celt or chisel probably made from a barrel band or horseshoe fragment. (Photo by James B. Legg)

Chickasaw themselves marched away to the north during the 17th century, to resettle in the Tupelo area.

The Chickasaw Nation recently became interested in locating the site of Chicasa, and their ancestral encounter with the Spanish. The Chicasa vicinity should exhibit evidence for the two Spanish camps, and a substantial scatter of mid-16th century European material in both Spanish and Native American contexts. Through their archaeologist, Brad Lieb, the Chickasaw contracted with former SCIAA Director Charlie Cobb and the University of Florida to conduct exploratory fieldwork. Charlie, in turn, subcontracted with SCIAA to perform the metal detecting component of the work. SCIAA (and Charlie) had previously worked with Brad Lieb and the Chickasaw Nation in defining the sites of the 1736 French-Chickasaw War, in and around Tupelo. That very successful project involved four, one-week field seasons between December 2011 and January 2013 (*Legacy* March 2012, November 2012; Smith et al 2013). An earlier cooperation between the Chickasaw and South Carolina began in the late 17th century and lasted through much of the 18th century—then, the Chickasaw were important military allies and trading partners of South Carolina (rather than France), and most of the European artifacts we recovered around Tupelo originally came ashore at Charleston.



Figure 4: A celt or chisel apparently made from the side panel of the eye of a large axe head. (Photo by James B. Legg)

Our metal detecting component of the 2015 project ran from June 15-19, coinciding with an extreme heat wave that made the endeavor all the more memorable. The detecting crew included Steve Smith and myself, and Brad Posey, who regular readers will recognize from *Legacy* coverage of his World War I projects in France (March 2010, May 2013). On the first day, Brad Lieb led us to a remote, densely wooded area near West Point, in Clay County, Mississippi, where several probable 16th century metal artifacts were found some years ago. We searched several sites without recovering anything particularly diagnostic. The next day, we began work on our second (and final) target, a large farm property near Starkville, in Oktibbeha County. This tract was recommended by retired Mississippi State University archaeologist John O'Hear, as it was known to include several 15th/16th century Mississippian farmsteads. These were sites that might well have been occupied in 1541, and might yield evidence of de Soto's passage through the vicinity.

Over the next four days, we recovered a remarkable assemblage of 32 metal artifacts, 29 of them from the same large, ridgetop site, 22OK778 (Figure 2). An additional iron tool was found by the Chickasaw Nation/University of Florida crew in a 1 X 1-meter test unit placed in a house location at 22OK778. Our collection

included cut and broken scraps of iron, sheet brass or copper, and lead, as well as tools and ornaments derived from the same materials. We found none of the familiar trade goods that consistently appear on Southeastern Native American sites dating from ca. 1680-1820—trade gun parts and ammunition, brass kettle lugs, copper alloy buttons, etc. Instead, we were presented with a collection of very heavily reworked metal fragments that appeared to derive from the breaking up, cutting and grinding of axe heads, horse shoes, and probably barrel bands, along with some unidentified iron and copper alloy objects (Figures 3, 4, and 5). There was also

a very crudely forged iron harness ring, and an unmodified wrought nail (Figure 6) that is identical to hundreds of examples recovered at Santa Elena (1566-1587). Not surprisingly, we speculated that we may have found what we were looking for—not de Soto at Chicasa itself, certainly, but material evidence of his passage through the area.

Seemingly, everything about de Soto's expedition is fraught with ambiguity and contention, including the march route, the locations visited, and the various finds of "de Soto" artifacts across the Southeast. The origin of our artifacts is no exception. There are good arguments pro and con, only a few of which will be touched on in this very preliminary discussion. The nature of the iron artifacts argues for a very early date—they reflect re-working by people who had little access to metal, and little skill in working it. One of the iron celts, for example, was laboriously ground into shape like a stone celt (Figure 5). Other objects exhibit cold-hammering and abrading as the primary means of working the metal. This argument can be countered by the fact that more than a century elapsed between de Soto's passage and the introduction of any regular flow of metal trade goods into the interior lower South. Several 17th century sites in interior Georgia and Alabama, for example, have yielded similar heavily curated and re-worked iron objects that derived from



Figure 5: A celt made from an unidentified cylindrical iron fragment. (Photo by James B. Legg)



Figure 6: A wrought nail of the familiar early Spanish type. (Photo by James B. Legg)

rare arrivals of European tools, probably from later Spanish expeditions, and from the Spanish mission settlements. (While 22OK778 is primarily a 15th- and 16th-century site, there is a minority pottery type that probably dates to the 17th century, allowing for a much later arrival of the metal). Still, we found a significant quantity and diversity of such

rare, “pre-trade” metal objects at one site, and we have barely scratched the surface. De Soto’s ragged army is an entirely reasonable candidate for the source of the artifacts.

As this article was near completion, I received an email from Charlie Cobb regarding the preliminary results of XRF elemental analysis of the iron

artifacts. Apparently, they are consistent in composition with early Spanish iron tools that were actually made in Spain, before the Mexican iron industry was well underway later in the 16th century. Our tools also match the Spanish tool iron from the Martin site, in Tallahassee, which is the only reasonably uncontroversial de Soto site available for comparison. While this is not a decisive finding, it certainly does not argue *against* a 1541 origin for our artifacts from 22OK778. As we often say, “additional work is indicated.” We hope to return to Mississippi in 2016.

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Figure 7: Some of the June, 2015 crew at 22OK778. (Left to right): John Lieb, archaeologist and volunteer (and Brad Lieb’s uncle); Steve Smith, SCIAA Director; Charlie Cobb, former SCIAA Director, University of Florida; Raymond Doherty, volunteer; Kim Wescott, USC Anthropology PhD candidate; Brad Posey, metal detector specialist; Glen Beverly, farm manager. (Photo by James B. Legg)

Fort Motte Research—2015 Update

By James B. Legg and Steven D. Smith

Research continues on the battlefield of Fort Motte, the British outpost in present Calhoun County that fell to an American siege in May 1781. Since last year's Fort Motte update (*Legacy*, Vol. 18, No. 2, December 2014), we undertook a substantial expansion to our systematic metal detecting coverage of the battlefield, and we conducted our regular, two-week excavation season in May. In addition, we have some exciting new results from a remote sensing survey conducted by State Archaeologist Jonathan Leader—that is a work in progress, and it will be reported by Jonathan in the next issue of *Legacy*.

Metal Detecting

Our metal detecting coverage of Fort Motte is a research component that we add to throughout the year. On the rare occasions when we both have a day to spare, and we have some notion that it might be good to get out of the office, we head off to Fort Motte. Since December

2014, we have made six or seven such excursions, in addition to some intensive metal detecting during the regular May field season. Our primary goals continue to be complete coverage of the core battlefield, and the discovery and definition of outlying components such as the campsites and the overseer's house discussed in previous articles (*Legacy*, Vol. 17, No. 2, November 2013 and December 2014). Much of our work in the last year has taken advantage of land management activities by the landowner, Luther Wanamaker, including extensive controlled burning, brush clearing, and some clearcutting. These sorts of ground clearing can provide optimal metal detecting conditions, and thus, reasonably definitive coverage; but the favorable conditions are short-lived and must be taken advantage of quickly.

In May 2015, we finally completed systematic, 100% metal detector coverage of the 10-acre cultivated field that



Figure 2: 1772 George III Halfpenny recovered from the sap camp. (Photo by James B. Legg)

includes Fort Motte and the American siege works. We found little related to the siege in the newly-covered areas of the field. This negative finding is not really a disappointment, as it adds clarity to the siege components identified in the past. Like positive shovel tests, metal detecting finds provide little spatial, distributional information unless they are seen on a matrix of negative information (e.g., sterile shovel tests or few metal detector finds). We now have a fairly clear view of activity in the field.

Previously (*Legacy*, December 2014), we discussed a battlefield component located to the east of Fort Motte, in the woods between the field and the American artillery battery. There, we have consistently encountered a linear, north-south scatter of artifacts, including unfired musket and rifle ammunition, and a few 18th century buttons. This year, we filled in our metal detector coverage of most of that area, and the linear distribution held up as suggested by earlier work. Our current interpretation is that this represents part of the American siege perimeter held by Francis Marion's men, probably in a tree line east of Fort Motte.

The most interesting discovery in the course of this year's metal detecting was a component directly related to the formal siege operations. We knew that the American sap, or siege approach trench, must have originated about 180 meters north of Fort Motte, where the nearly level crest of the hill abruptly slopes down steeply to the north, into a narrow ravine. Further north, downslope, the Americans



Figure 1: The site of the American "sap camp" discovered downslope from the mouth of the sap dug during the siege of Fort Motte. The orange pin flags represent individual artifact recoveries. (Photo by James B. Legg)

were under cover, but further south they could be fired on from Fort Motte, and digging was required. This spring, we found that the dense woods covering the northern slope had been subjected to a controlled burn, and metal detecting conditions were excellent. We covered the vicinity of where the sap would have originated, expecting to find evidence for a camp and other activity at what should have been a very busy locality during the siege. We were surprised to find only a few related artifacts. We extended our coverage downslope, and finally found a camp near the base of the slope, far below the mouth of the sap.

The “sap camp” (Figure 1) was small, discrete, and dense, and the sloping ground was an unusual location for a military camp. The camp was only about 15 X 30 meters in extent, and it yielded a collection of 39 artifacts, including unfired musket balls and buckshot, a quantity of melted and partially melted lead balls, a musket cleaning worm, a pocket knife, a thimble, brass accoutrement tacks, a period horse shoe, and a 1772 George III halfpenny (Figure 2). The most remarkable recovery from the sap camp was an iron arrowhead (Figure 3), which appears to have been forged from the shaft of a large wrought nail. Most early sources agree that the siege of Fort Motte ended when the Americans set fire to the roof of the Motte house with fire arrows, and the defenders were forced to surrender when their efforts to fight the fire were discouraged by American artillery fire. Our arrowhead would seem to be an extraordinary artifact of the siege.

May Excavations

Once again, we had a small turnout of crew for our two-week spring season, but those who did participate worked hard and accomplished much of what we had envisioned. We had two major excavation goals in 2015, including testing of the possible Levi Smith house site, and excavation of a more extensive run of the American sap trench where it neared Fort Motte. Neither result was exactly what we anticipated.



Figure 3: The wrought iron arrowhead recovered from the sap camp. (Photo by James B. Legg)

Levi Smith was a Loyalist militia officer who recalled that he was living in a house “within 200 yards of Fort Motte” before the siege. He was surprised and captured when the Americans arrived suddenly on the first day of the investment. Smith’s house is something of a mystery. Our chief candidate for the site was identified by metal detecting in 2004, as a scatter of wrought nails, 18th and early 19th century buttons, and a few other artifacts, located about 200 meters south of Fort Motte (Smith et al 2007: 58-61). However, one of the two large military camps located much later (*Legacy*, December 2014), eventually expanded to overlap with the postulated

Smith site. In May 2015, we dug three 1 X 1-meter test excavations on the “Smith” locus to confirm or deny the presence of an 18th century domestic site. The three units together produced a very small collection of very small artifacts, including three colonoware sherds, a creamware sherd, two wrought nail fragments, and a dark olive green bottle fragment. This collection makes it difficult to argue for much of a domestic site. We now believe that the apparent concentration of metal detector finds from 2004, is probably a combination of 1781 camp material and incidental plantation artifacts. In fact, we can now see that the “locus” is no more dense with



Figure 4: Digging 1 X 1-meter test units at what we formerly thought was the Levi Smith house site. (Photo by Steven D. Smith)



Figure 5: Excavation in the sap, 2015. (Photo by Steven D. Smith)

metal artifacts than the surrounding area, which is a good illustration of the necessity for large-area coverage when conducting metal detector survey.

In 2013, we located the America sap trench in six different locations along its run (*Legacy* November 2013). In 2014, we excavated a short segment of the sap where it neared Fort Motte (*Legacy*, December 2014). When we stopped, it appeared that the feature was about to make a 90-degree left turn, and run directly at the fort. Our plan for May 2015, was to expose this angle, and perhaps excavate the sap up to its terminus at the end of the siege on May 12, 1781. We began by cleaning out the previous year's backfilled excavation, and then proceeded into previously unexplored fill (Figure 5). It was immediately apparent that the sap was not making the expected turn—the feature is extremely difficult to see at base-of-plow zone depth, and we had misread it. In fact, the sap continued to run straight ahead for the remainder of the 2015 effort (Figure 6). As in 2014, the trench appeared to have been neatly dug, and it was clearly deliberately backfilled on top of a thin zone of washed sand in the bottom—there was at least one rainfall before the backfilling. Again, the backfill was obviously thrown in from the Fort

Motte side of the feature, where it would have been piled to form a parapet as the sap advanced under fire. As before, the overlying plow zone and the uppermost fill of the sap contained large amounts of mostly 19th century domestic material, but both the floor and the 1781 backfill were virtually sterile. This is in keeping with the fact that the Motte house was newly built at the time of the siege, and there was little or no sheet midden in place when the sap was dug and backfilled. The fact that there were no fired musket or rifle balls in the backfill suggests that the British did not fire on this section of the sap—we have speculated that it may have been dug on the final night of the approach.



Figure 6: The completed 2015 sap excavation. The northern corner of Fort Motte was located out of the picture, about 20 meters to the left. The diagonal ditch in the foreground is one of the exploratory track hoe cuts from 2013. (Photo by Tamara Wilson)



Figure 7: Steve Smith holds forth during the September 2015 tour of Fort Motte. (Photo by Shannon Hoover)

Public Education

In 2015, we continued to present the Fort Motte project to the public. So far this year, the effort has included five public or academic lectures, and in September, Steve Smith led a tour of the battlefield for the Archaeological Research Trust (ART) Board and a large group of Luther Wanamaker's friends and neighbors (Figure 7).

Acknowledgements

Our stalwart excavation crew this year included Larry Lane, Ellan Hambright, Andy Holloway, Kelly Goldberg, Tamara Wilson, Karen Smith, and Abi Rowe. Additional metal detecting expertise was provided by Brad Posey (Figure 8), Brett Cullen, Tim Lord, and Ailene Shields. As always, Luther Wanamaker provided not only access to his property, but also a variety of logistical support and enthusiastic encouragement.

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Figure 8: Metal detector technician, Brad Posey, during the May 2015 field season. (Photo by James B. Legg)

Trench Maps: Military Cartography on the Western Front, 1914-1918

An exhibit open through January 23, 2016, at the South Carolina Confederate Relic Room and Military Museum, Columbia

The exhibit *Trench Maps: Military Cartography on the Western Front, 1914-1918* features 19 original maps from the Western Front during World War I. The exhibit focuses on the development of military maps throughout the war and why they were vital to troops fighting on both sides. In previous conflicts, battles might last for hours or days in a given location, but on the Western Front, troops held the same entrenched positions for weeks, months, or years. This led to the development of a new class of military maps—these "trench maps" depicted complex trench systems and other features in remarkable detail, and allowed for the first widespread use of long-range indirect artillery fire.

In addition to the maps, artifacts in the exhibit include artillery ammunition, field equipment, a French artillery uniform, and photographs. *Trench Maps* will be open through at least January 23, 2016.

Trench Maps is guest curated by James Legg, archaeologist with the South Carolina Institute of Archaeology and Anthropology at the University of South Carolina. Legg has long had an interest in World War I, and he has made many trips to study the battlefields of the Western Front. In recent years, he has worked on two archaeological projects in the Argonne Forest, including research on the Sergeant York site and the Lost Battalion battlefield.

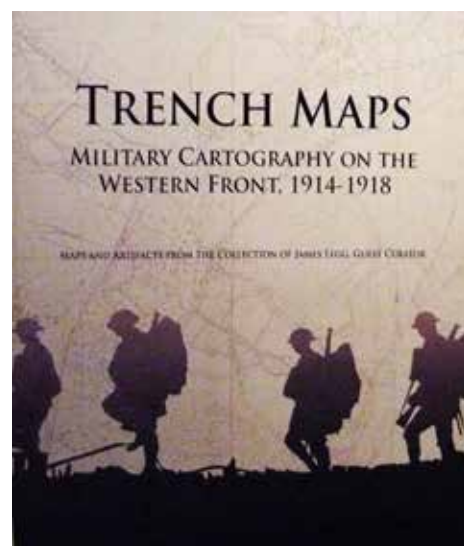


Exhibit panel by Jami Boone, (Courtesy of SC Confederate Relic Room and Military Museum)

Santa Elena Foundation Opens History Center

By Chester DePratter

A little more than two years ago, Daryl Ferguson called me from Beaufort, South Carolina, to talk about the Charlesfort/Santa Elena site and its history. He had just taken the walking tour of the site on Parris Island, read all the signage, and was surprised by what he learned concerning the importance of the site and its place in 16th century history. He wanted to know why the site had not received more publicity and what he could do to help educate the world about Santa Elena.

For those of you not familiar with Santa Elena, it was a major Spanish settlement established in 1566 by Florida's founder, Pedro Menéndez de Avilés. In 1565, Menendez was sent by Philip II to drive French intruders from Spanish territory in the New World. Upon arrival, he established a settlement he called St. Augustine, and then attacked and destroyed French Fort Caroline near present-day Jacksonville, Florida. The following year, he traveled north to establish the town of Santa Elena atop an earlier French settlement, Charlesfort, that was occupied for less than a year in 1562-1563. It was the plan of Menendez and King Philip to make Santa Elena the capital of Florida, and that happened in 1571, after settlers from Spain had populated the town. The town served as the capital

of *La Florida* until 1576, when it was attacked and burned by local Indians. Reestablished the following year, Santa Elena was occupied for another decade before being abandoned in 1587. Because of its role in early American history, the Charlesfort/Santa Elena site was made a National Historic Landmark in 2001.

Soon after Daryl's first call, I met with him and found him tremendously excited about his new project. I must admit that when he spoke of opening a world-class museum/interpretive center focused on the Charlesfort/Santa Elena story and drawing large numbers of visitors



Figure 2: Santa Elena Foundation Board Members. Back Row, (Left to Right): Dr. Andy Beall, Executive Director, Dr. Larry Rowland, Dr. Daryl Ferguson; Front Row, Garry Parks, Dr. Chester DePratter. (Photo courtesy of the Santa Elena Foundation)

to Beaufort, I was skeptical. Now, less than two and a half years later, the Santa Elena Foundation, founded by Daryl, have leased the former Beaufort County Federal Courthouse for development as the Santa Elena History Center. The Center is now open to the public and contains an introductory exhibit; it also hosts a variety of lectures and programs, and there is a hands-on archaeology station for younger visitors.

Daryl is now Chairman Emeritus of the Foundation, Dr. Andy Beall is the Executive Director, and Megan Meyer is the Director of Development. The Board of Directors includes Dr. Larry Rowland, well-known Beaufort County historian; Stu Rodman, a Beaufort County Commissioner; two retired U.S. Marine Corps generals; and others with backgrounds in education, business,



Figure 1: The Santa Elena History Center, 1501 Bay Street, Beaufort, South Carolina. (Photo courtesy of the Santa Elena Foundation)



Figure 3: "Celebrate the Space" reception in the former courtroom of the new Santa Elena History Center; exhibit opening April 2016 will be in this space. (Photo courtesy of the Santa Elena Foundation)

and connections with the local Hispanic community. The Board is supported by an Advisory Board that includes historians, archaeologists, museum professionals, educators, and others who will be of great assistance to the directors. For a complete listing of all board members, consult the Foundation's webpage: www.santa-elena.org.

As we approach the 450th anniversary of the founding of Santa Elena in April 2016, the Santa Elena Foundation is planning a series of major events to celebrate and commemorate the occasion. First and foremost, they are committed to opening a major exhibit in the History Center focused on 16th century *La Florida* and the role Santa Elena played in regional and world history during that period. I have the honor to serve as curator for that exhibit, which will combine history and archaeology. I am working closely with the Foundation's Exhibits Committee, which includes Larry Koolkin, an entrepreneur with museum experience at The Smithsonian Institution, and Michael Marks, former Director of the Discovery Museum on Hilton Head Island. Carol Poplin, Director of the History Workshop, part of Brockington and Associates, will lead the design and installation of the final exhibit. The exhibit, which will open in April 2016, will be located in the former

courtroom on the second floor of the Santa Elena History Center.

In conjunction with that exhibit opening and the 450th anniversary celebration, I am organizing a major conference of eminent historians and archaeologists who will present informative papers on 16th century *La Florida*, including French and Spanish settlements at Charlesfort, Ft. Caroline, Santa Elena, and St. Augustine, plus shipwrecks, long lost Spanish forts, and Jamestown. The lineup of speakers is spectacular, and will include the following: Dr. Robin Beck (University of Michigan), Dr. Kathleen Deagan (University of Florida), Dr. Chester DePratter (SCIAA, University of South Carolina), Dr. Michael Francis (University of South Florida), Carl Halbirt (City of St. Augustine), Dr. Paul Hoffman (Louisiana State University),

James Legg (SCIAA, University of South Carolina), Dr. William Kelso (Jamestown Rediscovery Project), Dr. Eugene Lyon (Vero Beach, Florida), Dr. John McGrath (Boston University), Dr. David Moore (Warren Wilson College), Dr. Karen Paar (Mars Hill University), James Spirek (SCIAA, University of South Carolina), Dr. David Hurst Thomas (American Museum of Natural History), Dr. Victor Thompson (University of Georgia), and Christopher Rodning (Tulane University).

This conference will be held at the University of South Carolina-Beaufort's Center for the Arts on April 15, 2016. This all-day session will be chaired by Dr. Lawrence Rowland (Beaufort, South Carolina). The Foundation's website contains additional information concerning this conference and other activities and events relating to the 450th commemoration.

The work of the Santa Elena Foundation is especially gratifying for me, since I began my search for French Charlesfort with Stanley South in 1989, and then worked with him at Santa Elena for nearly 20 years. Daryl Ferguson and the Santa Elena Foundation are dedicated to bringing the history and archaeology of this one-time Spanish capital to the public of South Carolina and to visitors from around the world. With their exhibits, programs, and interest in funding archaeology at Charlesfort/Santa Elena, the Foundation will bring new life to this site. The Santa Elena Foundation is supported in part by donations, so if you have an interest in supporting their important work, please visit their webpage at www.santa-elena.org.

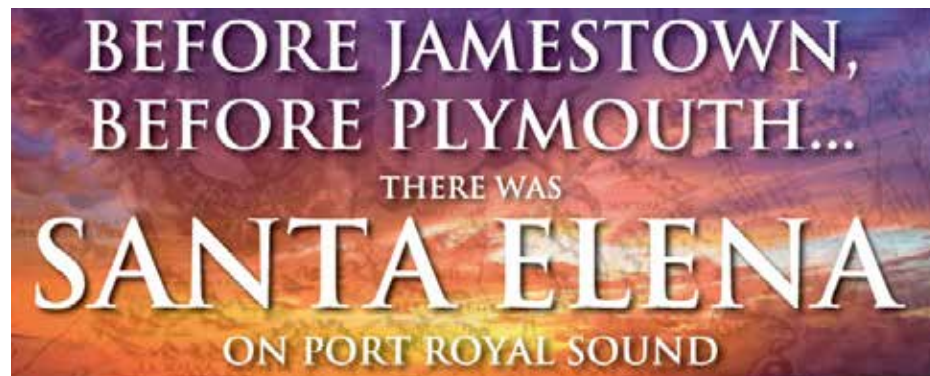


Figure 4: One of several Santa Elena billboards currently on display along I-95 and throughout Beaufort County. (Photo courtesy of the Santa Elena Foundation)

Savannah River Archaeology Research

Early Archaic Settlement along the Central Savannah River, Re-visited

By J. Christopher Gillam

Early cultures in South Carolina were dynamic and complex, not static or simplistic, and had an active role in shaping their environment and their cultural landscape (Sauer 1925) around them. Prior research on the Early Archaic period (ca. 8,000-10,500 years B.P.) suggested a mixed forager-collector strategy (cf., Binford 1980) of settlement along the Central Savannah River (Anderson and Hanson 1988; Gillam 2001; Hanson 1988). However, revised component-level analyses reveal that the cultural landscapes of early hunter-gatherers of the Inner Coastal Plain's Oak-Pine Savannah were more generalized

than previously thought (cf., Daniel 2001).

Reduced to its most common factors, features of the hunter-gatherer landscape include archaeological components, or artifacts, and elements of the natural environment, or environmental variables, which were exploited by early cultures. Common stone artifacts of the period include Dalton, Hardaway, Taylor, and Kirk points, as well as formal cutting and scraping tools, including Edgefield scrapers, end scrapers, side scrapers, backed knives, and blades (Figure 1). A landscape approach toward understanding prehistoric hunter-gatherers should therefore incorporate a component-

level analysis of the distribution of archaeological remains and should examine those components in relation to key environmental variables assumed to be significant to hunter-gatherer populations.

The SRS study area is located on the eastern side of the Central Savannah River and overlaps portions of Aiken, Barnwell, and Allendale Counties (Figure 2). This location consists of several tributary streams of the Savannah River, including Upper Three Runs Creek, Fourmile Branch, Pen Branch, Steel Creek, and Lower Three Runs Creek. The uplands have gently rolling, sandy hills overlooking streams and Carolina Bay wetlands on the flat pine savannahs of the upland terraces. There are five major landforms that include the Savannah River floodplain, three levels of ancient terraces overlooking the floodplain (T1a, T1b, and T2), and the Aiken Plateau in the uplands (Figure 2). Near the mouth of Lower Three Runs in Allendale County, are outcrops of Coastal Plain Chert that were used for stone tools throughout prehistory (Goodyear and Charles 1984).

There are 114 archaeological sites in this sample dating to the Early Archaic period, separated into six sub-samples for the analyses that follow. The sub-samples include five component-level and one combined dataset. The component or artifact-level sub-samples consist of sites containing Dalton points (n=9 sites), Taylor side-notched points (n=23 sites), Edgefield scrapers (n=7 sites), Kirk corner-notched points (n=57 sites), and formal unifaces (scrapers, blades, and knives; n=58 sites), respectively. The combined dataset contains all 114 Early Archaic sites used in the study (Figure 2). Elements of the environment (n=10 variables) deemed potentially important to the hunter-gatherer cultural landscape explored in this research include land elevation,

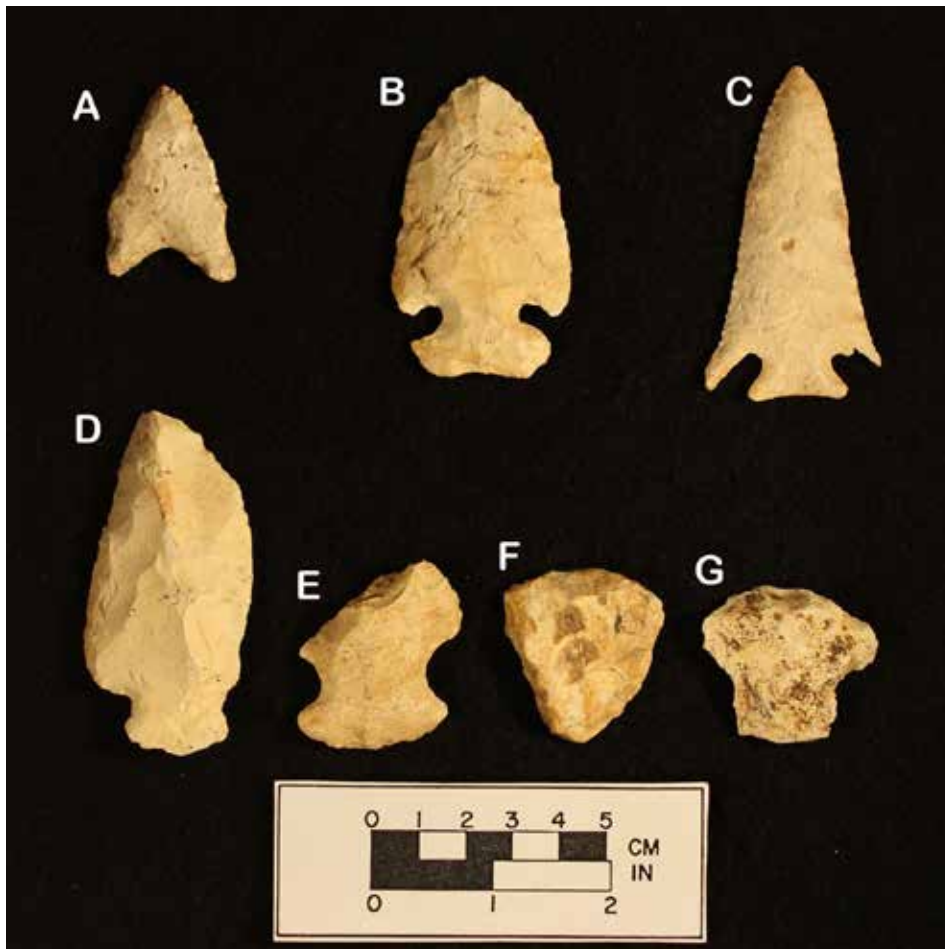


Figure 1: Typical Early Archaic artifacts (A. Dalton, 38AK224; B. Taylor Side-Notched, 38BR40; C. Kirk Corner-Notched, 38BR259; D. Waller Knife, 38BR393; E. Edgefield Scraper, 38AK557; F-G. Hafted Endscrapers, 38BR393). (after Gillam 2015: In press)

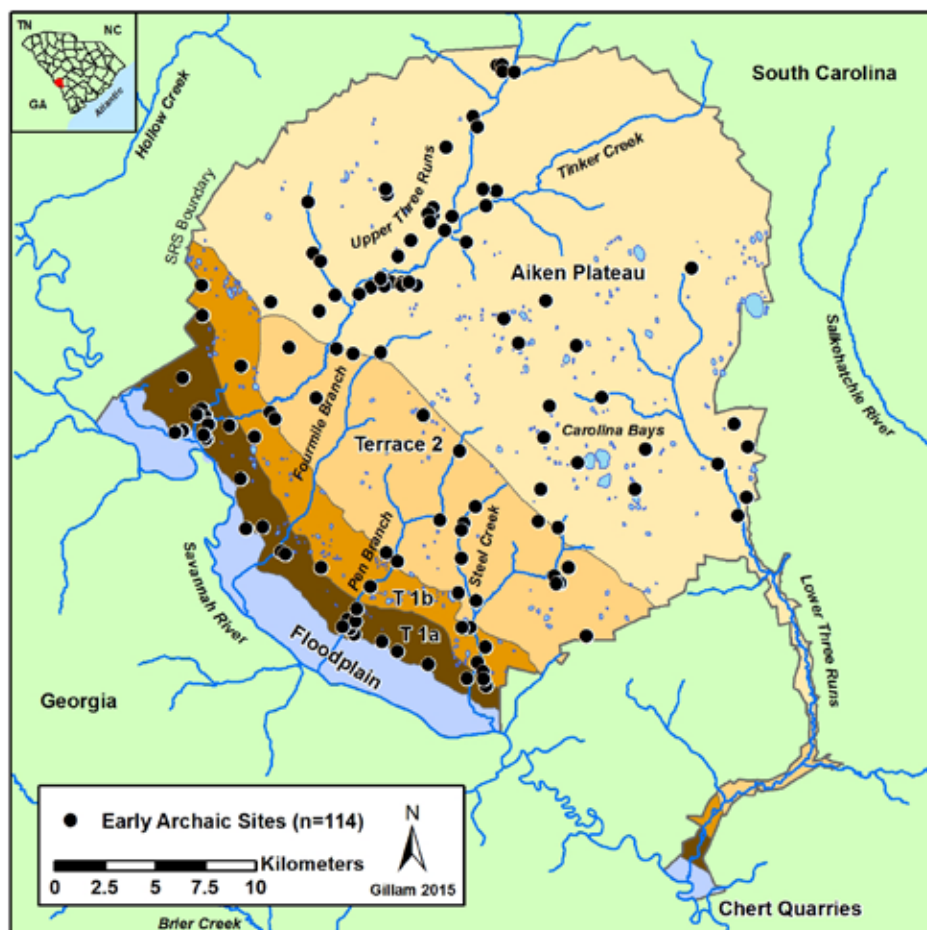


Figure 2: Early Archaic sites (n=114) on major landforms of the Savannah River Site (SRS) along the Central Savannah River. (after Gillam 2015: In press)

percent-slope of land, slope-direction (aspect) of land, major landforms and distance measures (m) to tributary streams, navigable streams, the Savannah River, upland Carolina Bay wetlands, upland trails, and chert stone quarries.

The Early Archaic sites were initially broken down into their five individual archaeological components, and the means of their environmental variables were calculated and statistically compared using ANOVA. The eight environmental variables examined here included elevation, percentage slope, tributary stream distance, navigable stream distance, Savannah River floodplain distance, Carolina Bay distance, upland trails distance, and chert quarry distance. Results of the ANOVA tests establish that these components represent a single statistical population, as no significant variations in the sample means were found. That is, the distributions of the various artifact types across the land are

the same relative to the environment. The archaeological components can therefore be combined into a single dataset for further statistical analyses and model development. These results also suggest that a generalized foraging adaptation is represented at the SRS location. The individual archaeological components have a similar distribution on the landscape overall, indicating a generalized adaptation instead of a collector strategy that would have targeted different resources across the terrain.

Analyses of the combined Early Archaic data using the Chi-Square (χ^2) statistic had similar results. Comparing the observed versus expected frequencies of sites on (a) major landforms, (b) 250-meter distance buffers from streams, and (c) within slope-direction (aspect) categories, revealed few significant patterns other than the presence of significantly more Early Archaic sites on the lower Pleistocene terrace (T1a)

immediately above the Savannah River floodplain (Table 1). Surprisingly, no other landforms had significantly more, or fewer, sites than expected by chance alone. For stream distance, significantly more sites than expected by chance alone occurred within 250 meters of streams and proportionally fewer sites occurred, than expected, beyond 250 meters; only the 750- to 1000-meter buffer area had significantly fewer sites than expected by chance alone (Table 2). Slope direction (aspect) is commonly used as an indicator of seasonal occupation. In particular, warmer south-facing slopes should be preferred for the winter habitation model proposed by Anderson and Hanson (1988). However, no statistically significant associations with slope direction were found in the analysis, suggesting habitation could have been any time throughout the year. Finally, the statistical t-Test for paired sample means revealed no significant difference for distance from sites to navigable streams and upland trails. Therefore, it is interpreted that navigable streams and upland trails were equally suitable passageways to-and-from Early Archaic sites. This also suggests that an equal amount of population movement may have occurred both within and between river drainage systems (e.g., Daniel 2001).

It is clear from the analyses that the existing Early Archaic hypothetical model for the SRS location needs revision (Figure 3; Anderson and Hanson 1988; Hanson 1988). Using the results of the statistical analyses, it is possible to develop a new model of the Early Archaic cultural landscape (Figure 4). Similar in concept to a combined prehistoric site location model for the SRS (Sassaman et al. 1990), the new model specifically represents the cultural landscape of the Early Archaic period.

The new model represents the hunter-gatherer cultural landscape as three foraging zones ranked by their relative importance, as reflected in the environmental setting of the Early Archaic archaeological record. The primary foraging and habitation zone of the model falls within the Savannah River floodplain and the lower Pleistocene terrace (T1a)

Landform	Observed	Expected	Coverage	X ²	Significance
S. R. Floodplain	1	6	0.055	4.3930	-
T1a	26	7	0.064	47.5577	MORE*
T1b	12	8	0.071	1.8486	-
T2	19	21	0.185	0.2003	-
A. Plateau	56	71	0.625	3.2676	-
Total	114	114	1	57.2673	YES**

*where $X^2 \geq 6.635$, $df = 1$, and 0.01 Probability.

**where $X^2 \geq 13.277$, $df = 4$, and 0.01 Probability.

Table 1: Chi-Square (X²) statistic comparing the observed versus expected frequencies of Early Archaic sites on major landforms of the SRS. (Table constructed by J. Christopher Gillam)

above it and then extends into the Aiken Plateau for all areas within 250 meters of tributary streams and upland Carolina Bays. This zone contained the greatest diversity of plants and animals and likely witnessed the greatest cultural modification and maintenance by early hunter-gatherers.

The secondary foraging zone is represented by all areas falling between 250 meters to 750 meters of tributary streams. Although less plant and animal diversity is expected for this relatively flat and dry terrain, it also may have experienced significant modification by early hunter-gatherers. Open canopies could be maintained by regular burning or tree girdling, the removal of bark to kill unwanted trees, and would result in a higher frequency of low shrubs, grasses, and herbs. Grasses and shrubs would have provided more grazing opportunities for large herbivores, such as white-tailed deer and woodland bison, as well as smaller game, such as turkey and rabbits.

The upland or tertiary foraging zone represents minimal use areas falling at distances greater than 750 meters from streams and more than 250 meters from upland Carolina Bays. This tertiary zone may have been primarily used for upland trail networks and tracking large game above the dissected streams and swampy bottomlands. This zone probably experienced the least cultural modification, other than burning, and witnessed minimal use for foraging, with more favorable environs located closer to stream and bay edges.

This data-driven model of the Central Savannah River's Early Archaic cultural landscape may be applied to the broader region of the Inner Coastal Plain. This is possible due to the similarities of the

region's environment and topography. As such, it also serves as a predictive model of Early Archaic site location and has been successfully applied in the field for Kelsey Meer's MA research, as part of

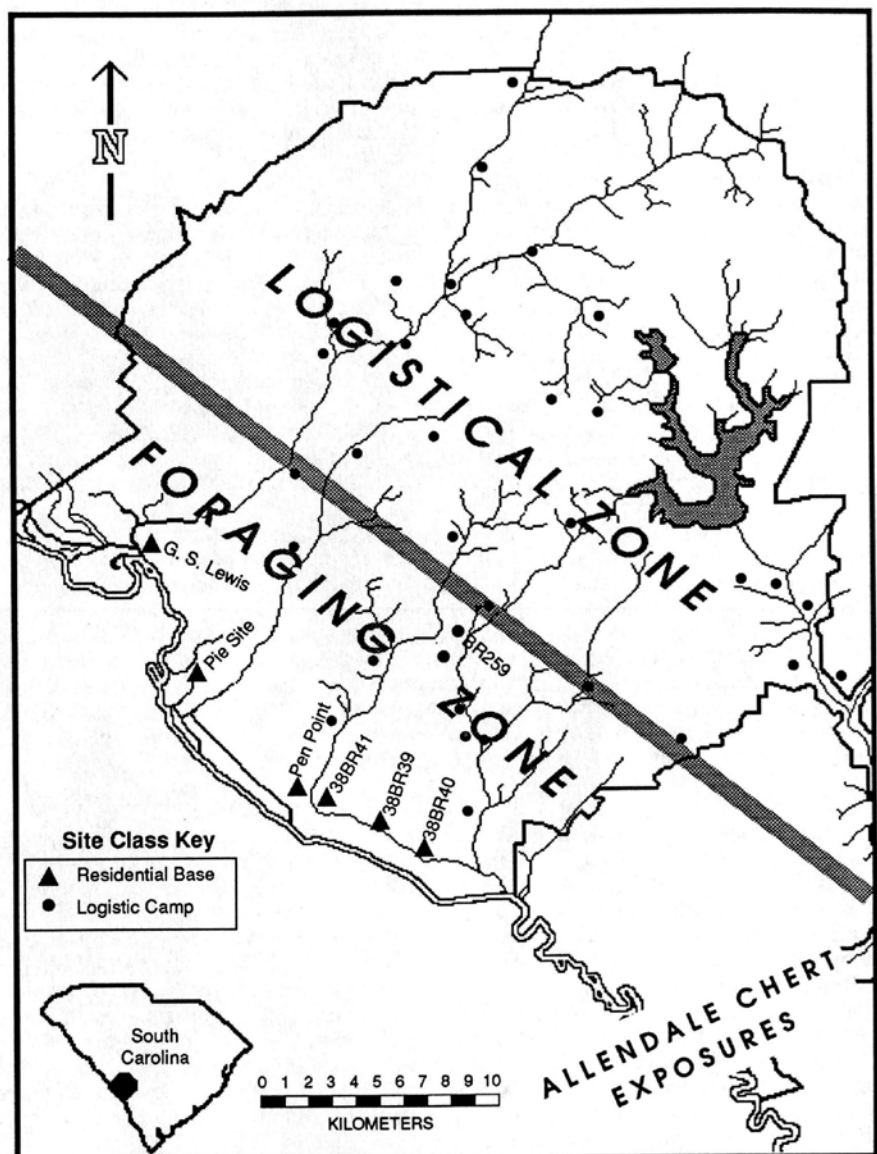


Figure 3: The Hanson (1988) model of Early Archaic settlement on the SRS (adapted from Sassaman et al. 1990)

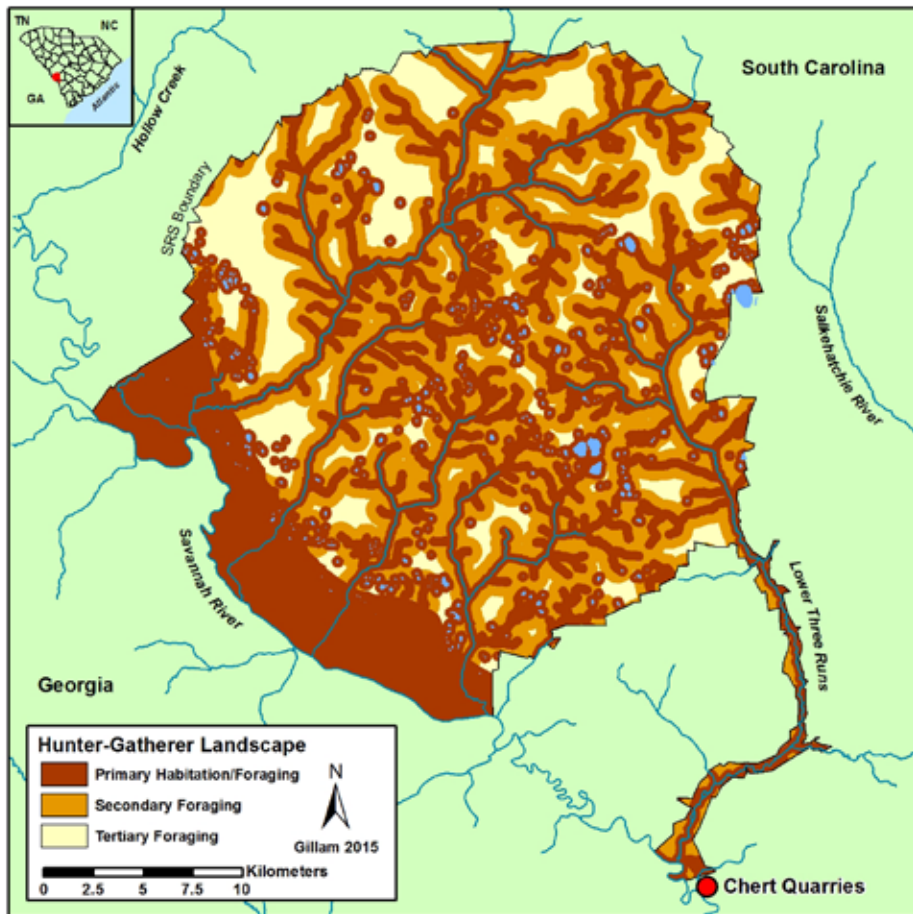


Figure 4: The Early Archaic cultural landscape of the SRS. (after Gillam 2015: (In press))

the 2015 Mississippi State University field school in Allendale County (Miller 2015, Pers. Comm.). The model aided survey planning and significantly reduced the area requiring archaeological survey to discover and document early prehistoric sites, a positive development indeed!

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Distance (m)	Observed	Expected	Coverage	X ²	Significance
250	65	42	0.3656	13.043	MORE*
500	25	30	0.2664	0.950	-
750	16	20	0.1772	0.873	-
1000	2	11	0.0965	7.366	FEWER*
1250	3	5	0.0478	1.102	-
1500	2	3	0.0256	0.287	-
1750	0	1	0.0127	1.443	-
2000	1	1	0.0058	0.174	-
2250	0	0	0.0021	0.244	-
2500	0	0	0.0003	0.033	-
Total	114	114	1	25.513	YES**

where $X^2 \geq 6.635$, $df = 1$, and 0.01 Probability.

*where $X^2 \geq 21.666$, $df = 9$, and 0.01 Probability.

Table 2: Chi-Square (X²) statistic comparing the observed versus expected frequencies of Early Archaic sites within 250-meter distance buffers from streams and Carolina Bays. (Table constructed by J. Christopher Gillam)

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Special Events

The 24th Annual South Carolina Archaeology Month

By Nena Powell Rice

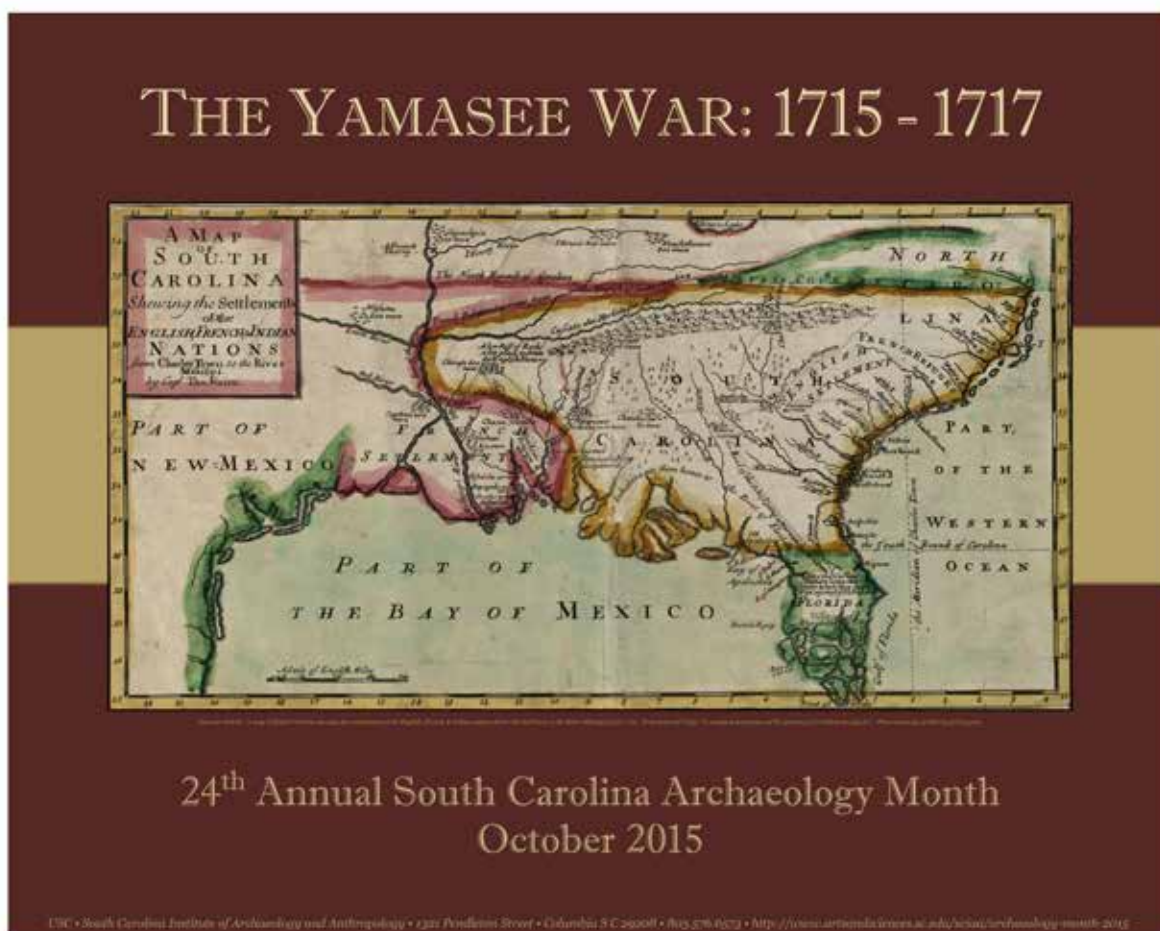
The archaeological community in South Carolina has just celebrated its 24th Annual South Carolina Archaeology Month offering over 80 programs across the state. The series of events offered a large range of cultural programs that span the rich cultural heritage of South Carolina covering the early Paleoindian time periods, as well as the Archaic, Woodland, Mississippian, Colonial, American Revolution, Civil War, and underwater topics. The South Carolina Institute of Archaeology and Anthropology (SCIAA) at the University of South Carolina coordinated the programs and most of the tours, public excavations, and lectures were offered in October, however, there are

still more programs being offered through December 2015.

Each year, the archaeological community focuses on a theme to educate the public in different topics of archaeological inquiry. This year was the 300th Anniversary of the Yamasee Wars that took place in the lowcountry of South Carolina around present day Beaufort and Charleston from 1715-1717. This year, Dr. Chester DePratter, Lisa Hudgins, and Jon Marcoux produced a colorful poster giving the history of the Yamasee War. Please come by 1321 Pendleton Street, Columbia, SC 29208 to pick up free posters. You may view the poster, front and back, and for a list of the events that were offered this fall,

please visit: <http://www.artdsandsciences.sc.edu/sciaa> under SC Archaeology Month. For any further information, please contact Nena Powell Rice, SC Archaeology Month Statewide Coordinator at (803) 576-6573 Office or nrice@sc.edu.

Unfortunately, due to the heavy flooding in Columbia in September, The Archaeological Society of South Carolina (ASSC) had to cancel the very popular 28th Annual Archaeology Fall Field Day. The ASSC hopes to partnership with the 12,000 Year History Park Working Group and River Alliance next year. For further information about the ASSC, and the annual conference on South Carolina Archaeology offered in the spring, please visit www.assc.net.



The front of the 24th Annual South Carolina Archaeology Month poster in 2015. (Poster design by Lisa Hudgins; text on the back by Chester DePratter and Jon Marcoux)

Archaeological Research Trust (ART)

Introducing New ART Board Member Sam E. McCuen

We are pleased to announce that Sam E. McCuen joined the Archaeological Research Trust Board of the S.C. Institute of Archaeology and Anthropology in February 2015. Sam has jumped right into board business and brought some great ideas to the table.

Sam E. McCuen of Lexington, S.C., has an excellent national reputation for teaching executives how to deal with the news media—especially during a crisis! Hundreds of business, industry, and government CEOs from all 50 states and Canada have benefitted from his training and advice. Clients include utilities, chambers of commerce, paper mills, chemical companies, professional engineers, steel mills, school administrators, airports, hospitals, and federal, state, and local government agencies.

As a reporter for South Carolina's largest daily newspaper, Sam won four prestigious Associated Press awards. He nurtured hundreds of young communications majors while teaching at the University of South Carolina and has been a guest lecturer at USC's Darla Moore School of Business.

Sam has also played a leading role in developing projects that have won the nation's highest public relations and advertising awards. He is a member of the international Association of Business Communicators, the S.C. Press Association, and the S.C. Broadcasters Association. He is a current or former member of the Boards of Directors of the S.C. Philharmonic Orchestra, Palmetto Place Children's Emergency Shelter, S.C. Center for Birds of Prey, S.C. Humanities Council,

the S.C. Archives and History Foundation, the Columbia Museum of Art, the USC College of Journalism, the Allen University Educational Foundation, and the City of Columbia Parks Foundation.



Sam McCuen at the November ART Board meeting at the site of Mars Bluff on the Great Pee Dee River. (Photo by Nena Powell Rice)

Introducing New ART Board Member Ben Zeigler



Ben Zeigler hosted the November 2015 ART Board meeting and led members and guests to the site of Mars Bluff. (Photo by Nena Powell Rice)

A native of Florence, S.C., Ben Zeigler is a dedicated volunteer in the community with an avid interest in history and archaeology. He worked at SCIAA for Stan South at Santa Elena for two summers as a teenager and has undertaken or been involved in various SCIAA related efforts over the years, including Steve Smith's work for the Francis Marion Trail Commission and the CSS *Pee*

Dee. Ben graduated with a BA, *Magna Cum Laude*, from The University of the South, Sewanee, TN; a M. Phil., Oxford University; and a JD from Harvard University. He serves or has served as a board member for the following organizations: Francis Marion Trail Commission, Chairman; McLeod Health; Florence County Progress, Chairman; Relocation Task Force, Chairman, Membership Committee; Tourism Study Committee, Chairman; Pee Dee Land Trust, Chairman (2004-2008); Francis Marion University Foundation; Florence Center for the Arts; Florence County Museum; South Carolina Tourism Alliance; Initiant Healthcare Collaborative; Belle W. Baruch Foundation, Chairman; Wright Foundation for Southern Art, Chairman; and the South Carolina Golf Association, Executive Committee.

Among several very distinguished awards in his professional law practice, Ben was named winner of the 2008 South

Carolina Environmental Awareness Award for outstanding contributions toward the protection, conservation, and improvement of South Carolina's natural resources. He received the South Carolina Golf Association's Charles Drawdy Distinguished Service Award in 2014.

He received the prestigious Liberty Fellowship (2007) and served as a delegate to the American Council on Germany Young Leaders Conference (2002). Prior to entering private practice, Ben was law clerk to The Hon. Donald S. Russell, U.S. Court of Appeals for the 4th Circuit, and during law school was clerk to The Hon. George R. Sprague of the Massachusetts District Court.

Ben's professional and civic activities include serving on the National Association of Bond Lawyers, South Carolina Bar, South Carolina Supreme Court Commission on Lawyer Conduct (2005-2009), and the South Carolina Eminent Domain Study Committee.

ART / SCIAA Donors Update August 2014-November 2015

The staff of the Institute wishes to thank our donors who have graciously supported the research and programs listed below.

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State Archaeologist, Jonathan Leader, leads a discussion of the CSS *Pee Dee* at the Mars Bluff Navy Yard on the banks of the Great Pee Dee River to ART Board members in November. (Left to right): Steve Smith, David Harper with the Pee Dee Land Trust, Bob Mimms, Ben Zeigler (host), Glenn Dutton (landowner), Sam McCuen, Jo Baker, Jonathan Leader, and Rachel Holliday (back to the camera).. (Photo by Nena Powell Rice)



ART board member Jo Baker took this picture of Maritime Research Division diver, Joe Beatty, tapping Nate Fulmer on the head to let him know he is good to go to enter the Pee Dee during the lifting of the cannons. Jo labeled it "The blessing of the diver." (Photo by F. Jo Baker)

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Therault site Redstone point showing both sides, from Brier Creek, GA. (Photo by Christopher Moore)

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Exploring the Buried Archaic Archaeology of South Carolina

By **Andy White**

I've spent my first few months in South Carolina working to develop several lines of research that I will use in combination to address the "big picture" issue of the emergence of complex societies in the Eastern Woodlands. An important part of my agenda involves identifying intact Archaic Period (ca. 8,000-2,000 B.C.) deposits that preserve information about the behaviors and decisions of families and small groups during this important span of prehistory. That means finding sites with features and artifact scatters that haven't been extensively damaged by things like agriculture and erosion.

My search for buried Archaic archaeology, although just in its beginning stage, has gone very well so far. I've been working on documenting a 10-meter-long vertical section of a natural levee along the Broad River (Figure 1). Natural levees are elongated ridges of naturally-deposited sediment along rivers. The surfaces of the levees, near water but elevated

above the surrounding floodplain, were attractive locations for the camps and habitation sites of Archaic peoples. As a levee was occupied and re-occupied, sediments deposited by periodic flooding simultaneously buried and preserved cultural debris left on the surface, built the levee upward, and created new surfaces. Over time, this process of repeated occupation and periodic flooding created stratified records of prehistoric behavior that can be "read" from bottom to top.

The profile I'm working on was first exposed by machine excavation years ago. The portion I've cleaned and documented so far has revealed what appears to be a buried Middle Archaic deposit (about two meters beneath the surface) as well as debris and features from post-Archaic (Mississippian and possibly Woodland) components nearer the surface. Artifacts mapped in place in the deeply buried deposit include fire-cracked rock and numerous pieces of quartz chipping debris.



Figure 2: Middle Archaic Guilford point (re-worked into a hafted scraper) found in the slump at the base of the profile. (Photo by Andy White)

Many additional pieces of quartz debris, presumably eroded out of the buried deposit, were collected when the slump from the base of the profile was screened. At least some of the quartz debris can be fitted back together, suggesting the deposit was created when prehistoric peoples sat at that spot to make stone tools. The deposit is thought to be Middle Archaic in age (dating to perhaps 4,000-3,000 B.C.) because of a quartz Guilford point (Figure 2) that was recovered from the slump at the base of the profile.

Sites like this one offer tremendous and varied possibilities for helping us understand what was happening during the Archaic in South Carolina, the broader Southeast, and the Eastern Woodlands in general. Because they potentially preserve information about changes through time in the way Archaic groups organized themselves, they are of great benefit to telling the story of the emergence of social complexity in the Eastern Woodlands. I'm very happy to have been directed to the site by Al Goodyear, and very grateful for the generosity of the landowner. I hope to have more to report soon.



Figure 1: Work in progress cleaning and documenting a section of the exposed levee deposits. Flagging tape marks locations of cultural materials. (Photo by Andy White)